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A summary of the papers in this month's issue.

Solid-phase synthesis

- 2,6,9-trisubstitued purines have been prepared on an indole resin, and this approach was used to generate olomoucine and close analogues (Dorff and Garigipati, *Tetrahedron Lett.*, 2001, *42(15)*, 2771-2773).
- Analogues of the potent and selective cyclopeptide $\alpha_V\beta_3/\alpha_V\beta_5$ integrin ligand, (-RGDfK-), have been prepared on solid support. This method allows derivatisation of the lysine side-chains to attach reporter groups (Boturyn and Dumy, *Tetrahedron Lett.*, 2001, *42(15)*, 2787-2790).
- Chiral 2-amino-benzimidazoles have been prepared through a multistep reaction sequence on solid support that commenced with optically active amino acids (Lee *et al*., *Tetrahedron Lett.*, 2001, *42(14)*, 2635-2638).
- The first example of a reaction on solid-phase catalysed by visible light irradiation has been reported. This process selectively removes thiol groups using triethylborane and triethylphosphite (Arsequell *et al*., *Tetrahedron Lett.*, 2001, *42(14)*, 2685-2687).
- Tetrahydroquinoxalines have been prepared on solid phase in three combinatorial steps and then released through acid-catalysed cleavage of a traceless linker (Krchnák *et al*., *Tetrahedron Lett.*, 2001, *42(13)*, 2443-2446).
- 2,5-Disubstituted 1,3,4-oxadiazoles have been prepared in seven steps on solid support and liberated by acidic cleavage (Kilburn *et al*., *Tetrahedron Lett.*, 2001, *42(13)*, 2583-2586).

Novel building blocks

- Boc and Fmoc protected peptoid nucleic acid monomers bearing thymine, adenine or guanine groups on the side-chain have been prepared and used to generate dipeptoid acid precursors of peptoid nucleic acids (Wu *et al*., *Tetrahedron*, 2001, *57(16)*, 3373-3381).
- Phosphinic peptide building blocks suitable for the solid-phase synthesis of pseudopeptides have been generated (Georgiadis *et al*., *Tetrahedron*, 2001, *57(16)*, 3471-3478).

Novel resins and linkers

- Protected peptides, peptide amides and peptide *N*-alkyl amides have been prepared on a polystyrene support using a photolabile 2-nitrobenzyl anchoring group (Kumar *et al*., *Tetrahedron*, 2001, *57(15)*, 3151-3158).
- A novel strategy for the solid-phase synthesis of peptide aldehydes has been described that depends on linkage to the support through an acetal linker (Yao and Xu, *Tetrahedron Lett.*, 2001, *42(13)*, 2549-2552).

Library applications

- A solid-phase synthesis of asymmetric cyanine dyes has been described and used in a combinatorial approach for the discovery of new dyes (Isacsson and Westman, *Tetrahedron Lett.*, 2001, *42(18)*, 3207-3210).

- A novel family of partially-modified retropeptidyl hydroxamates have been prepared on solid-phase and used in a search for novel metalloprotease inhibitors (Volonterio *et al*., *Tetrahedron Lett.*, 2001, *42(17)*, 3141-3144).
- High throughput parallel solution synthesis of imidazoles has produced several compounds with high affinity and selectivity at recombinant human somatostatin subtype 3 ($hsst_3$) receptors (Moinet *et al*., *Bioorg. Med. Chem. Lett.*, 2001, *11(8)*, 991-995).
- Compounds from a library of substituted pyrazoles made by parallel solution methods have shown the ability to activate soluble guanylate cyclase and inhibit platelet activation (Selwood *et al*., *Bioorg. Med. Chem. Lett.*, 2001, *11(8)*, 1089-1092).